ovum, a rounded mass composed of a group of small, pale, and scarcely visible cells, enclosed in a common envelope, which become more and more apparent in proportion as the egg approaches the term of its maturity. At this moment it is impossible not to recognize in these elements the analogues of the spermatic cells of which I have described the mode of formation in speaking of the development of the viviparous *Aphides*. These cells, indeed, present all the characters, even to the green coloration due to numerous small pigment-granules, which I have indicated in the latter; and we may also recognize in them even the little daughter cells in which the seminal corpuscles will afterwards be developed. These facts evidently indicate that the egg has already, while in the ovary, undergone a first fecundation, with which the male has nothing to do, and the effect of which is limited to the production of the generative elements of the future animal. Now the agents of this fecundation are nothing but the seminal corpuscles developed in the hermaphrodite apparatus of the embryo, and which are transmitted by the latter to the adult female.

After fecundation by the male, and the deposition of the egg which succeeds this, the embryogenic work, properly so-called, commences. The blastoderm appears in the form of a continuous layer of cells surrounding the whole surface of the egg. This blastoderm opens widely at its posterior part, and the mass of spermatic cells penetrates towards the middle of the vitellus. A wide canal, which extends from the posterior pole to the centre of the egg, marks this passage for some time; then the orifice of the blastoderm closes, and the walls of the canal are effaced. But, unfortunately, the egg, which, while these phenomena are taking place, has acquired a darker tint at its anterior pole, due to the coloration of the chorion, soon becomes covered from one end to the other by a blackish veil, which conceals from the observer the further phenomena taking place in its interior.

XIX.—*Note on some new Genera of Fossil Birds in the Woodwardian Museum.* By H. Seeley, Esq.

TERTIARY BIRDS.

Ptenornis.

Sternal end of a right coracoid from the Lower Tertiary of Hempstead, Isle of Wight. It has much the size and form seen in the Mute Swan; but the exterior angle is rounded and thickened, as in *Bubo*. The bone is compressed; the sternal articulation is convex. There is nothing to show whether the

bird was raptorial or natatorial. It bears evidences of having been eaten.

Macrornis tanaupus, Seeley.

Proximal end of right tibia of a large Struthious bird from Hordwell. It is as large as the Emu, but is further removed from the Emu than the Ostrich, in the struthious direction. Both pairs of sides are subparallel. The patelloid prominence arises from a narrower base than in the great Struthionidæ, and is produced into a considerable process on the inner side of the leg. There is an inflation at the back of the proximal end. The shaft is compressed, and the fibula-ridge is sharp. The points in which it is unlike known struthious birds are those which characterize some genera of waders and gallinaceous birds.

Megalornis, Seeley.

Lithornis emuianus, Bowerbank, Ann. Nat. Hist.

Cast of original specimen in the British Museum; and distal end of a right tibia exactly corresponding to it, from the London Clay of Eastchurch, in the Isle of Sheppey. Taking the Ostrich as a type, this bird diverges from the typical Struthionidæ on the other side of the Emu, yet appears to conform to the Casuarine allies. The shaft is set on to the extreme back of the trochlear end, and is more robust than in the Emu. Also its posterior side is more rounded, and the inner side more angular.

CRETACEOUS BIRDS.

Mr. Lucas Barrett, in 1858, discovered bones in the Upper Greensand which he recognized as those of a bird allied to the Natatores. They are described, in Sir C. Lyell's Supplement to the fifth edition of the 'Elements,' as rather larger than those of a common pigeon. And Prof. Owen, in the second edition of the 'Palæontology,' speaks of a trifid tarsus showing the *outer* toe-joint much higher up than the other two. Of neither of these are there any examples at Cambridge. But we have collected or seen a number of cervical, caudal, and dorsal vertebræ, proximal and distal ends of tarsal bones, proximal ends of tibiæ, proximal and distal ends of femora, humeri, metacarpal bones, &c., which demonstrate the existence of a very distinct genus of birds in the Cambridge Greensand, of which I have named the typical species *Pelagornis Barretti*.

Descriptions of these new genera will appear in the 'Catalogue of Fossil Vertebrata in the Woodwardian Museum.'